

***DRAFT – October 14, 2002***  
**SOUTH CAROLINA’S**  
**PROTOCOL FOR EARLY ACTION COMPACTS**  
**DESIGNED TO ACHIEVE AND MAINTAIN THE 8-HOUR OZONE STANDARD**

**I. Purpose of Early Action Compact**

The U.S. Environmental Protection Agency (EPA) has provided an option for areas, like those in South Carolina, to attain the 8-hour ozone standard by December 31, 2007, and obtain cleaner air sooner than federally mandated. This option offers a more expeditious time line for achieving emissions reductions than the EPA’s expected 8-hour ozone implementation rulemaking, while providing “fail-safe” provisions for the area to revert to the traditional State Implementation Plan (SIP) process if specific milestones are not met. To be eligible to participate, the area must be attainment (including no monitored violations) of the 1-hour ozone standard but may be approaching or exceeding the 8-hour ozone standard. Currently, all of South Carolina attains the 1-hour ozone standard; however, some areas of the state may have difficulty complying with the 8-hour ozone standard. Through the development of an Early Action Compact (Compact), local, state, and EPA officials agree to work together to develop and implement local and/or state early action plans that will become a part of an early action SIP.

The principles of the Compact to be executed by local, state, and EPA officials are:

- a. Early planning, implementation, and emission reductions leading to expeditious attainment and maintenance of the 8-hour ozone standard;
- b. Broad based public input on measures to be employed both from a state and local level;
- c. State support to ensure technical integrity of controls within the local early action plan;
- d. Formal incorporation of the early action plan into the early action SIP revision (December 31, 2004);
- e. Deferral of the effective date of non-attainment designation and related requirements so long as all Compact terms and milestones are met; and,
- f. Safeguards to return areas to traditional SIP requirements should Compact terms and/or milestones be unfulfilled, with appropriate credit given for emission reduction measures implemented in the early action SIP.

**II. Early Action Compact Requirements**

At a minimum, the following items must be included in the Compact:

- A. Milestones and Reporting
  1. To facilitate self-evaluation and communication with the EPA, the South Carolina Department of Health and Environmental Control (DHEC) and stakeholders, the Compact must include clearly measurable milestones for the development and implementation of the early action plan. DHEC and local areas will assess progress towards milestones and make

a report available to the public at least every six months detailing progress toward milestones. Milestones will include, at a minimum:

- a. Completion of emissions inventories and modeling;
  - b. Adoption of control strategies that demonstrate attainment;
  - c. Completion and adoption of the early action SIP revision;
  - d. Attainment not later than December 31, 2007; and,
  - e. Post-attainment demonstration and early action plan updates as outlined in Section E (of this document).
2. In the absence of achieving milestones, the area will forfeit its participation and will be subject to the full planning requirements under applicable Clean Air Act (CAA) traditional SIP processes including requirements defined as part of the EPA's 8-hour ozone implementation rulemaking. Such an area will be subject to the same requirements and deadlines which would have been effective under the CAA and the EPA's 8-hour ozone designation rulemaking had it not participated in the Compact, with no preferential delays or exemptions from the EPA. However, the area will receive appropriate credit in the traditional SIP process for all emission reductions from measures implemented in the early action SIP.
  3. If the area has had the effective date of a non-attainment designation deferred and the area does not reach attainment of the standard by December 31, 2007, then the non-attainment designation will be effective immediately. If the EPA's implementation schedule also requires a SIP from areas on or before December 31, 2007, then a SIP revision demonstrating attainment by the new attainment date will be due for the non-attainment area no later than December 31, 2008. The EPA will offer areas no extensions or delays of the applicable attainment date, unless extensions are allowed under the normal 8-hour ozone implementation process. In no event will the EPA extend the attainment date for the area beyond that required by the CAA and/or the EPA's 8-hour ozone implementation rule.

#### B. Emissions Inventory

1. Modeling emissions inventories using the most current tools available have been completed for at least one recent episode to support the early action plan. Emission inventories must include:
  - a. 1998 or later episode reflective of a typical ozone season exceedance that meets the EPA episode selection guidance to ensure that representative meteorological regimes are considered;
  - b. MOBILE6 data;
  - c. NONROAD model data;
  - d. Area source database utilizing population data allocated statewide; and,
  - e. Local information, where available.
2. Further episode inventories will also be developed over time to fully represent the variety of situations that typically contribute to ozone production in the area and to include the most recent developments.

3. Emission inventories will be compared and analyzed for trends in emission sources. This will improve an area's understanding of the trends in emissions in their community and will aid in verification of the accuracy of the inventories.

C. Modeling

1. Emission inventories will be used to develop SIP quality modeling episodes that perform within the EPA's accepted margin of accuracy, including a base case and future case on or before December 31, 2007. Therefore, inventories must sufficiently account for projected future growth in ozone precursor emissions, particularly from stationary, non-road, and on-road mobile sources.
2. DHEC must carefully document the modeling approach, and the EPA will review the work.
3. Quantifiable emission reduction measures will be integrated into the future case to produce one or more control cases. These control cases will be used to indicate the relative effectiveness of different measures and aid in selecting appropriate measures.
4. Prior to early action SIP implementation, the control strategies should be determined based on model results from a control case episode that shows achievement of the 8-hour ozone standard on or before December 31, 2007, through implementation of the control strategies.
5. Other episodes will continue to be developed as necessary to fully represent the variety of situations that typically contribute to ozone production in the area and to support the early action SIP with the most current information and tools. Other episodes may also indicate necessary revisions to ensure that sufficient emission reduction measures are selected and implemented to continue to achieve target ozone concentration levels.

D. Control Strategies

1. After all adopted federal and state controls that have been or will be implemented by the attainment date of December 31, 2007, are accounted for in the modeling, the local area will identify additional local controls, as necessary, to demonstrate attainment of the 8-hour ozone standard on or before December 31, 2007. These local controls will be specific, quantified, and enforceable control strategies. All controls will include specific implementation dates, as well as detailed documentation and reporting processes.
2. Controls will be implemented as soon as practicable, but not later than April 1, 2005.
3. Controls will be designed and implemented with full stakeholder participation.
4. All control measures will be incorporated by the state into the SIP and submitted to the EPA for review and approval. In the event that areas wish to add or substitute measures after SIP submittal, modifications will be treated as SIP revisions and facilitated by the state.

E. Maintenance for Growth

1. The early action plan must include a component to address emissions growth at least 5 years beyond December 31, 2007, ensuring that the area will remain in attainment of the 8-hour ozone standard during that period. This future attainment maintenance analysis may employ one or more of the following:

- a. Modeling analysis showing ozone levels attainment of the 8-hour ozone standard in 2012;
  - b. An annual review of growth (especially mobile and stationary source) to ensure control measures and growth assumptions are adequate;
  - c. Identification and quantification of federal, state, and/or local measures indicating sufficient reductions to offset growth estimates; or,
  - d. Any other appropriate techniques necessary to make such a demonstration.
2. The early action SIP must also detail a continuing planning process that includes modeling updates and modeling assumption verification (particularly growth assumptions). Modeling updates and planning processes must consider and evaluate:
  - a. All relevant actual new point sources;
  - b. Impacts from potential new source growth; and,
  - c. Future transportation patterns and their impact on air quality in a manner that is consistent with the most current adopted Long Term Transportation Plan and most current trend and projections of local motor vehicle emissions.
3. If the review of growth demonstrates that adopted control measures are inadequate to address growth in emissions, additional measures will be added to the early action plan. Local planning processes should prepare for this possibility.

**F. Public Involvement**

1. Public involvement is strongly encouraged during the planning and implementation process.
2. Public awareness programs will be used to provide opportunities for involvement in the planning process, implementation of control strategies, and any other issues important to the area.
3. Interested stakeholders will be involved in the planning process as early as possible. Planning meetings will be open to the public, with posted meeting times and locations. Early action SIP drafts will be publicly available, and the drafting process will have sufficient opportunities for comment from all interested stakeholders.
4. Public comment on the proposed early action SIP will follow the traditional SIP revision process as implemented by the state.
5. Semi-annual reports detailing, at a minimum, progress toward milestones, will be made available to the public.
6. DHEC has established a website for South Carolina's Early Action Plan for the 8-hour Ozone standard, located at [www.scdhec.net/baq/eap.html](http://www.scdhec.net/baq/eap.html).

### **III. Local, State, and the EPA Commitments**

The use of the word "signatories" in this section includes those individuals and/or groups that will sign or have signed the Compact.

**A. Local Areas**

Local areas will participate in the development and implementation of the local area early action plan, as well as for maintaining communication with all signatories, including:

1. Signing the Compact within 90 days of EPA endorsement of protocol.
2. Submitting the local early action plan by August 31, 2003 to be incorporated into the statewide early action plan.
3. Adopting the local early action plan as part of the early action SIP no later than December 31, 2004.
4. Collecting and/or assisting in the collecting of local emissions data.
5. Developing and implementing local measures to reduce emissions.
6. Supporting state efforts including public education efforts and state control measures.
7. Notifying signatories as soon as possible of issues and developments, which may impact performance and progress toward milestones.
8. Notifying signatories as soon as possible if Compact milestones will be missed or have been missed.
9. Notifying signatories as soon as possible if Compact modification/termination is to be requested.

**B. State**

The state will provide support to areas throughout the planning and implementation process, including:

1. Drawing up the Compact, which embodies the requirements described in Sections A-F, including a time line for milestones.
2. Completing and signing by all signatories of the Compact within 90 days of EPA endorsement of protocol.
3. Notifying signatories as soon as possible of issues and developments, which may impact performance and progress toward milestones.
4. Notifying signatories as soon as possible if Compact milestones will be missed or have been missed.
5. Notifying signatories as soon as possible if Compact modification/termination is to be requested.
6. Providing technical assistance in the development of emission inventories, modeling process, trend analysis, and quantification and comparison of control measures.
7. Providing necessary information on all federal and state adopted emission reduction measures, which affect the area.
8. Providing technical and strategic assistance, as appropriate, in the selection and implementation of control strategies.
9. Providing technical and planning assistance in developing and implementing processes to address the impact of emissions growth beyond the attainment date.
10. Maintaining monitors and reporting and analysis of monitoring data.
11. Promoting public awareness efforts.
12. Coordinating communication between local areas and the EPA to facilitate continuing the EPA review of local work.
13. Ensuring expeditious review of local early action plan(s), and if deemed adequate, proposing modification of the early action SIP to adopt the early action plan.

14. Adopting control measures into the early action SIP as expeditiously as possible. The final complete early action SIP revision must be completed, adopted, and submitted by the state to the EPA by December 31, 2004.

C. EPA

The EPA will participate by:

1. Recognizing the local area's and state's commitment to voluntarily adopt an early, substantive, enforceable, and scientifically-based attainment plan with early implementation of control measures by becoming a party to the Compact developed in conformance with this protocol.
2. Providing technical assistance to the state and local area in the development of the early action plan.
3. Quickly reviewing and approving the completed early action SIP by no later than six months after submission of the SIP revision by the state.
4. Deferring the effective date of non-attainment designation and related requirements for participating areas that fail to meet the 8-hour ozone standard as long as all terms and milestones of the Compact are being met, including submission of the early action SIP revision by December 31, 2004.
5. Expeditiously designating the area as attainment and imposing no requirements, provided that the monitors in the area reflect attainment by December 31, 2007.
6. Ensuring appropriate credit in the traditional SIP process for all emissions reductions from measures implemented in the early action SIP if the area does not meet all the terms of the Compact; including meeting agreed-upon milestones and is designated (or re-designated if necessary) according to the EPA's 8-hour ozone implementation guidelines. The EPA will offer such an area no delays, exemptions, or other favorable treatment because of its participation in the Compact.
7. Not allowing any area to renew their Compact after December 31, 2007, or initiate a new compact if it has previously forfeited its participation.